

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

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OPINION 435

Suppression under the Plenary Powers of the generic name *Achorutes* Templeton, 1835, and designation under the same Powers of type species in harmony with current usage for the genera *Hypogastrura* Bourlet, 1839, and *Neanura* MacGillivray, 1893 (Class Insecta, Order Collembola)

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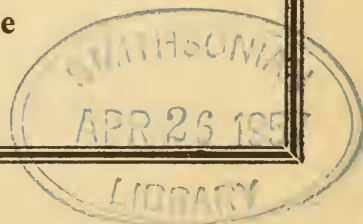
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OPINION 435

**SUPPRESSION UNDER THE PLENARY POWERS OF THE
GENERIC NAME "ACHORUTES" TEMPLETON, 1835,
AND DESIGNATION UNDER THE SAME POWERS
OF TYPE SPECIES IN HARMONY WITH CURRENT
USAGE FOR THE GENERA "HYPOGASTRURA"
BOURLET, 1839, AND "NEANURA"
MACGILLIVRAY, 1893 (CLASS INSECTA,
ORDER COLLEMBOLA)**

RULING :—(1) The following action is hereby taken
under the Plenary Powers :—

(a) The under-mentioned names are hereby suppressed
for the purposes of the Law of Priority but not
for those of the Law of Homonymy :—

- (i) the generic name *Achorutes* Templeton, 1835 ;
- (ii) the generic name *Rathumoutes* Templeton,
1843 ;
- (iii) the specific name *murorum* Bourlet, 1843, as
published in the combination *Hypogas-
trura murorum* ;

(b) All designations, indications, or selections of type species for the nominal genera *Hypogastrura* Bourlet, 1839, and *Neanura* MacGillivray, 1893, made prior to the present Ruling are hereby set aside and the nominal species severally specified below are hereby designated to be the type species of the nominal genera in question :—

(i) *Achorutes viaticus* Tullberg, 1872, to be the type species of *Hypogastrura* Bourlet, 1839 ;

(ii) *Achorutes muscorum* Templeton, 1835, to be the type species of *Neanura* MacGillivray, 1893.

(2) The under-mentioned generic names are hereby placed on the *Official List of Generic Names in Zoology* with the Name Numbers 1037 and 1038 respectively :—

(a) *Hypogastrura* Bourlet, 1839 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b)(i) above : *Achorutes viaticus* Tullberg, 1872) ;

(b) *Neanura* MacGillivray, 1893 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b)(ii) above : *Achorutes muscorum* Templeton, 1835).

(3) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* with the Name Numbers 1060 and 1061 respectively :—

(a) *muscorum* Templeton, 1835, as published in the combination *Achorutes muscorum* (specific name of type species of *Neanura* MacGillivray, 1893) ;

(b) *viaticus* Tullberg, 1872, as published in the combination *Achorutes viaticus* (specific name of type species of *Hypogastrura* Bourlet, 1839).

(4) The under-mentioned generic names are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* with the Name Numbers severally specified below :—

(a) *Achorutes* Templeton, 1835, as suppressed under the Plenary Powers under (1)(a)(i) above (Name No. 757) ;

(b) *Rathumoutes* Templeton, 1843, as suppressed under the Plenary Powers under (1)(a)(ii) above (Name No. 758) ;

(c) *Achoreutes* Templeton, 1843 (an Erroneous Subsequent Spelling for *Achorutes* Templeton, 1835) (Name No. 759) ;

(d) *Biloba* Stach, 1949 (a junior objective synonym of *Neanura* MacGillivray, 1893, as defined under the Plenary Powers under (1)(b)(ii) above (Name No. 760) ;

(e) *Anoura* Gervais, 1843 (a junior homonym of *Anoura* Gray (J.E.), 1838) (Name No. 761) ;

(f) *Anura* Agassiz (J.L.R.), 1846 (a junior homonym of *Anura* Hodgson, 1841) (Name No. 762) ;

(g) *Neogastrura* Stach, 1949 (a junior objective synonym of *Hypogastrura* Bourlet, 1839, as defined under the Plenary Powers under (1)(b)(i) above (Name No. 763).

(5) The under-mentioned specific name is hereby placed on the *Official Index of Rejected and Invalid Specific*

Names in Zoology with the Name No. 363 :—*murorum* Bourlet, 1843, as published in the combination *Hypogastrura murorum*, as suppressed under the Plenary Powers under (1)(a)(iii) above.

(6) The under-mentioned family-group names are hereby placed on the *Official List of Family-Group Names in Zoology* with the Name Numbers severally specified below :—

- (a) HYPOGASTRURINAE Börner, 1906 (type genus : *Hypogastrura* Bourlet, 1839) (Name No. 123) ;
- (b) NEANURINAE Börner, June 1901 (type genus : *Neanura* MacGillivray, 1893) (Name No. 124).

(7) The under-mentioned family-group names are hereby placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* with the Name Numbers severally specified below :—

- (a) ACHORUTINI Börner, 1901 (type genus : *Achorutes* Templeton, 1835, treated incorrectly as having *Achorutes viaticus* Tullberg, 1872, as type species) (invalid (a) under *Declaration* 20 because the name of the type genus of this family-group taxon has been suppressed under the Plenary Powers under (1)(a)(i) above and (b) under *Declaration* 28¹, because the family-group taxon so named was based by its author on an incorrectly determined type genus) (Name No. 102);
- (b) ACHORUTINAE Börner, 1906 (type genus : *Achorutes* Templeton, 1835, treated correctly as having *Achorutes muscorum* Templeton, 1835, as type species) (invalid under *Declaration* 20 because the name of the type genus of this family-group

¹ *Declaration* 28, which bears the same date as the present *Opinion*, has been published in the immediately preceding Part (Part 20) of the present volume.

taxon has been suppressed under the Plenary Powers under (1)(a)(i) above) (Name No. 103) ;

(c) BILOBIDAE Stach, 1951 (type genus : *Biloba* Stach, 1949) (invalid, because the name *Biloba* Stach, 1949, is a junior objective synonym of *Neanura* MacGillivray, 1893, as defined under the Plenary Powers under (1)(b)(ii) above, the name *Neanura* MacGillivray, 1893, being the name of a nominal genus which is the type genus of the family-group taxon NEONURINAE Börner, June 1901, the name of which has priority over the name BILOBIDAE Stach, 1951) (Name No. 104) ;

(d) NEOGASTRURIDAE Stach, 1949 (type genus : *Neogastrura* Stach, 1949) (invalid because the name *Neogastrura* Stach, 1949, is a junior objective synonym of *Hypogastrura* Bourlet, 1839, as defined under the Plenary Powers under (1)(b)(i) above, the name *Hypogastrura* Bourlet, 1839, being the name of a nominal genus which is the type genus of the family-group taxon HYPOGASTRURINAE Börner, 1906, the name of which has priority over the name NEOGASTRURIDAE Stach, 1949) (Name No. 105).

I. THE STATEMENT OF THE CASE

The problem represented by the complex of generic names centred around the name *Achorutes* Templeton, 1835 (Class Insecta, Order Collembola), together with problems connected with the names of certain other genera in the same group was first brought to the attention of the Office of the International Commission on Zoological Nomenclature in a letter dated 27th November 1945 by M. Hermann Gisin (*Muséum d'Histoire Naturelle, Genève*). For various reasons it was not possible at that time either for M. Gisin or for the Office of the Commission

to make any progress with this case and it was not until 15th December 1954 that at length M. Gisin was able to submit an application to the International Commission. The application so submitted, which took account of the various decisions on matters of procedure taken respectively by the Thirteenth (Paris) and Fourteenth (Copenhagen) International Congresses of Zoology, was as follows :—

Proposed suppression under the Plenary Powers of the generic name “Achorutes” Templeton, 1835, and proposed designation under the same powers of type species for the genera “Hypogastrura” Bourlet, 1839, “Neanura” MacGillivray, 1893 (Class Insecta, Order Collembola) in harmony with accustomed usage

By HERMANN GISIN

(*Muséum d'Histoire Naturelle, Geneva*)

The object of the present application is to secure the assistance of the International Commission on Zoological Nomenclature to put an end to the long-standing confusion and lack of uniformity in the literature of the Order Collembola arising from the use of the generic name *Achorutes* Templeton, 1835, for one genus mainly by European authors and for a different genus mainly by American authors. Both the genera involved are of great taxonomic and economic importance. The relevant facts are set out in the following paragraphs.

2. The generic name *Achorutes* Templeton, 1835 (*Trans. ent. Soc. Lond.* 1(2) : 96) was established for two nominal species both then named for the first time. These were : (i) *Achorutes dubius* (: 96) ; (ii) *Achorutes muscorum* (: 97). No type species was designated by Templeton for this genus.

3. At a meeting of the *Société entomologique de France* held in 1843 Lucas, at the request of the President (Milne Edwards), made a communication to the Society regarding papers recently published on the Collembola in which he is recorded as having spoken as follows in regard to the genus referred to above :—“ . . . *Achorutes* Templ., . . . dont l'espèce type est *A. muscorum* . . . ”. While opinions differ as to whether, in making this observation, Lucas intended to select a type species for the genus *Achorutes* Templeton in the nomenclatorial sense, the words employed undoubtedly constitute such a selection under the present *Règles*. Moreover, as *Achorutes muscorum* Templeton was one of the species originally included in the genus *Achorutes* Templeton and as no type species for that genus had previously been designated or selected, Lucas's action is valid under the *Règles*. Lucas's paper attracted no attention at the time of its publication and his

action in regard to the genus *Achorutes* Templeton long passed unnoticed, both in Europe and in America. The extent to which Lucas's action was overlooked even in America may be judged by the fact that as late as 1893 (*Canad. Ent.* 25 : 315) McGillivray published a paper in which he sought to select *Achorutes dubius* Templeton to be the type species of the genus *Achorutes* Templeton, while at the same time he established the genus *Neanura* (*ibid.* 25 : 314), as a substitute for *Anoura* Gervais, 1843, designating *Achorutes muscorum* Templeton, 1835, to be the type species of his new genus *Neanura*. It will be necessary later to revert to the question of the status of the genus *Neanura* MacGillivray. In the meantime, however, it must be noted that the nomenclature established by MacGillivray has long been, and currently is, accepted by American specialists who recognise the genus *Neanura* MacGillivray with *Achorutes muscorum* Templeton as type species, notwithstanding the fact that, as shown above, that species is under the *Règles* the type species of the older nominal genus *Achorutes* Templeton.

4. The next generic name to be considered is *Hypogastrura* Bourlet, 1839 (*Mém. Soc. R. Sci. Lille* 1839(1) : 404), a monotypical genus with *Podura aquatica* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) 1 : 609) as type species. On this basis the name *Hypogastrura* Bourlet, 1839, is a junior objective synonym of *Podura* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) 1 : 608), for the nominal species *Podura aquatica* Linnaeus, 1758, is also the type species of *Podura* Linnaeus by designation by the International Commission under its Plenary Powers (see *Opinion* 239 embodying a decision taken in 1948 and promulgated in the foregoing *Opinion* in 1954, *Ops. Decls. int. Comm. zool. Nomencl.* 4 : 361—372). It is quite clear, however, that the genus *Hypogastrura* Bourlet is a genus based upon a misidentified type species, the species cited under this name by Bourlet as *aquatica* Linnaeus not being that species. That he had made an error of identification when establishing his genus *Hypogastrura* was quickly recognised by Bourlet himself who in 1843 gave the name *Hypogastrura murorum* (*Mém. Soc. R. Agric. Dep. Nord* 1841—1842 : 123) to the species to which in 1839 he had erroneously applied the name *Podura aquatica* Linnaeus. The nominal species *Hypogastrura murorum* Bourlet cannot be identified with certainty and the name is therefore a *nomen dubium*. It is commonly treated in catalogues as possibly a senior synonym of *Achorutes viaticus* Tullberg, 1872 (*K. svensk. Vetensk-Akad. Handl.*, Stockholm (n.s.) 10 (No. 10) : 50). In establishing his species *viaticus*, Tullberg gave a clear and recognisable description of the species concerned and it is not necessary therefore to examine in detail the synonymy which he gave for this species, beyond noting that he included in that synonymy the name *Hypogastrura murorum* Bourlet, 1843 (and through it the species misidentified by Bourlet in 1839 as *Podura aquatica* Linnaeus), thus establishing a link, though somewhat tenuous in character, between his new species and the sole species originally placed by Bourlet in the genus *Hypogastrura*. In 1906 Börner (*Mitt. naturh. Mus. Hamburg* 23 : 156) designated *Hypogastrura viaticus* Tullberg

as the type species of the genus *Hypogastrura* Bourlet, and his nomenclature has prevailed ever since in Europe. In 1916 (*Proc. U.S. nat. Mus.* 50 : 479) Folsom pointed out that Börner's interpretation of Bourlet's *Hypogastrura* was not consistent with the fact that *Podura aquatica* Linnaeus was the sole species placed by Bourlet in this genus and he accordingly reverted to the use of the name *Achorutes* Templeton for the genus containing the nominal species *Hypogastrura viatica* Tullberg. In so acting, Folsom was restoring the nomenclature established in 1873 by Lubbock (*Monogr. Collemb. Thysan.* : 177) who in this matter had been followed by MacGillivray (1893, *Canad. Ent.* 25 : 315) and other authors up to and including Börner himself prior to his re-introduction in 1906 of the name *Hypogastrura* Bourlet for this genus. Since the publication of Folsom's (1916) paper the name *Achorutes* Templeton has been used by American authors for the genus known in Europe as *Hypogastrura* Bourlet.

5. The next name to be considered is *Anoura* Gervais, 1843 (*Ann. Soc. ent. France* 11(3) : Bull. xlvii), for which the type species, by original designation, is the nominal species *Achorutes tuberculatus* Nicolet, 1842 (*Neue Denkschr. schweiz. Ges. Naturw.* 6 : 51). This nominal species is not identifiable with certainty, but Nicolet himself in 1847 (*Ann. Soc. ent. France* (2) 5 : 388) suggested that it represented the same species as that represented by the nominal species *Achorutes muscorum* Templeton, 1835, a view which has been generally adopted by later workers. On this basis the generic name *Anoura* Gervais, 1843, is a junior subjective synonym of *Achorutes* Templeton, 1835, of which (as shown in paragraph 3 above) *Achorutes muscorum* Templeton is the type species. Quite apart from this subjective synonymisation of the name *Anoura* Gervais with the name *Achorutes* Templeton, the name *Anoura* Gervais is objectively invalid, being a junior homonym of the name *Anoura* Gray (J.E.), 1838 (*Mag. Zool. Bot.* 2(12) : 490), the name of a genus in the Class Mammalia.

6. MacGillivray (1893, *Canad. Ent.* 25 : 314) was the first author to note that the name *Anoura* Gervais, 1843, was invalid under the Law of Homonymy. He sought to remedy this by introducing the name *Neanura* which he stated was "proposed for *Anoura* Gerv. which is pre-occupied in mammalogy". At the same time he described his *Neanura* as a "nov. gen." and designated *Achorutes muscorum* Templeton as its type species. The name *Neanura* MacGillivray is currently used by American specialists for this genus, for which however (as shown in paragraph 3 above) the oldest available, and therefore the correct, name is *Achorutes* Templeton, the name used for it by European workers.

7. At this point it is necessary to draw attention to a complication which arises in connection with the name *Neanura* MacGillivray which has not previously been noted in the discussion of this name. That is, that, although MacGillivray expressly stated that the name *Neanura* was a *nom. nov. pro* the preoccupied name *Anoura* Gervais,

he designated as the type species of his new genus a nominal species (*Achorutes muscorum* Templeton) different from that (*Achorutes tuberculatus* Nicolet) which was the type species of the genus *Anoura* Gervais. There is thus a formal inconsistency between the two parts of the action taken by MacGillivray, for (1) if his statement that *Neanura* is a substitute name for *Anoura* Gervais is accepted, its type species is automatically the same nominal species (*Achorutes tuberculatus* Nicolet) as that which is the type species of *Anoura* Gervais, notwithstanding MacGillivray's own simultaneous designation of a different nominal species (*Achorutes muscorum* Templeton) as the type species of *Neanura*, while (2) if MacGillivray's designation of *Achorutes muscorum* Templeton as the type species of his *Neanura* is accepted, it is necessary to reject his statement that *Neanura* is a replacement name for the invalid name *Anoura* Gervais. That this aspect of the case has not previously been the subject of examination is due no doubt to the fact that the two nominal species cited above are commonly regarded as representing a single species and therefore that the problem discussed above is one of nomenclatorial importance only. Moreover, up to 1953 there existed no provision in the *Règles* by which to determine which of the two statements made by MacGillivray in regard to his *Neanura* is to be accepted and which rejected. This matter was however settled at Copenhagen by the Fourteenth International Congress of Zoology when it decided, in an exactly parallel case at the species-name level, that, where a name was published partly as a substitute for some previously published name and partly to designate some other taxon, the taxon "to which the new name applies is in all circumstances that to which the previously published name is applicable" (1953, *Copenhagen Decisions zool. Nomencl.* : 75—76, Decision 142)². We see therefore that under the *Règles* *Neanura* MacGillivray is objectively identical with *Anoura* Gervais and therefore that its type species is the nominal species *Achorutes tuberculatus* Nicolet (the type species of *Anoura* Gervais) and not (as incorrectly stated by MacGillivray, when publishing the name *Neanura*) the nominal species *Achorutes muscorum* Templeton. The name *Neanura* MacGillivray is thus a junior subjective synonym of *Achorutes* Templeton and not a junior objective synonym, as it would have been, if its type species had been *Achorutes muscorum* Templeton (as it was erroneously stated to be by MacGillivray).

8. The other names or variant spellings involved in the present case need not detain us for long. They are the following :—

(1) *Rathumoutes* Templeton, 1843, *Trans. ent. Soc. Lond.* 3(4) : 306

In 1843 Templeton stated that it was necessary to establish several new subgenera for the genus *Podura* Linnaeus. In the last of these he included "*aquatica*, Lin., *fimetaria*, Lin., *ambulans*,

² The interpretation of the *Règles* here put forward by M. Gisin has since been officially endorsed by the International Commission in *Declaration 27*. See paragraph 3 of the present *Opinion*.

Fab., with *dubius* and *muscorum*” the last two nominal species being the sole species which he had included originally in his genus *Achorutes*. Without giving any explanation of his action, Templeton then wrote :—“I wish the name I gave this last [subgenus] changed from *Achoreutes* to *Rathumoutes*.” The latter name, as a *nom. nov. pro* the name *Achorutes* Templeton, 1835, takes automatically under Rule (f) in Article 30 the same type species as that of the nominal genus, the name of which it replaces. The type species of *Rathumoutes* Templeton, 1843, is therefore *Achorutes muscorum* Templeton, 1835, the type species of *Achorutes* Templeton, 1835 (see paragraph 3 above).

- (2) *Achoreutes* Templeton, 1843, *Trans. ent. Soc. Lond.* 3(4) : 306

The spelling *Achoreutes* was used by Templeton only in the passage quoted in (1) above in which he rejected the name *Achorutes* published by himself in 1835 and sought to replace it by the name *Rathumoutes*. The spelling *Achoreutes* is thus evidently no more than a spelling mistake for *Achorutes*.

- (3) *Anura* Agassiz (J.L.R.), 1846, *Nomencl. zool.*, Index univ. : 27

This name which appears to have been overlooked was a deliberate emendation by Agassiz of the name *Anoura* Gervais, 1843 (discussed in paragraph 5 above). Under the *Règles* as they exist today that emendation was not justified and the name *Anura* Agassiz is therefore an Invalid Emendation. Even if this had been a Valid Emendation, ranking for priority from 1843, the year in which the emended name *Anoura* Gervais was published, the name *Anura* (emend. by Agassiz of *Anoura*) Gervais, 1843, would have been invalid, since it would have been a junior homonym of *Anura* Hodgson, 1841 (*J. asiat. Soc. Bengal* 10(1) : 28). Under the revision of Article 19 carried out by the Fourteenth International Congress of Zoology, Copenhagen, 1953, an Invalid Emendation ranks as a separate name attributable to its own author and date. By Agassiz's action there is therefore a separate name *Anura* Agassiz, 1846, which, as explained above, is an invalid name by reason of being a junior homonym of *Anura* Hodgson, 1841, in addition to being an Invalid Emendation of *Anoura* Gervais, 1843.

- (4) *Neohypogastrura* Paclt, 1944, *Acta Soc. ent. Bohem.* 41 : 52

In 1944 Paclt published a short note in which he drew attention to the fact that (as noted in paragraph 4 of the present application) Bourlet in 1843 gave the name *Hypogastrura murorum* to the species to which he had erroneously applied the name *Podura aquatica* Linnaeus, 1758, when in 1839 he had first published the generic name *Hypogastrura*. Paclt then introduced the new name *Neohypogastrura* as a substitute for the name *Hypogastrura* as defined by Bourlet in 1843 (i.e. for a genus having *Hypogastrura murorum* Bourlet, 1843, as type species), as contrasted with Bourlet's original use of the name *Hypogastrura* in 1839. As

already noted, *Hypogastrura murorum* Bourlet is a *nomen dubium* doubtfully identifiable with *Achorutes viaticus* Tullberg, 1872. The name *Neohypogastrura* Paclt is thus, on the subjective plane, doubtfully available for the genus currently, though incorrectly, known as *Hypogastrura* Bourlet, 1839, by European workers.

- (5) *Neogastrura* Stach, 1949, *Apterygotan Faun. Poland*, Fam. Neogastruridae Brachystomellidae (*Act. Mon. Mus. Hist. nat. Krakow*) : 6, 9, 16

and

- (6) *Biloba* Stach, 1949, *ibid.* : 6, 16

The present problem was considered in 1949 by Stach who, after pointing out (: 15) that neither the American usage nor the European usage of “the name *Achorutes*=*Neanura* or *Achorutes*=*Hypogastrura*” was in strict accord with the provisions of the *Règles*—a view which it must be conceded is correct—expressed the following opinion (: 16):—“It would be rational to desist the names *Achorutes*, *Hypogastrura* and *Neanura* and use the new generic names mentioned above, namely *Neogastrura* nom. nov. (= *Achorutes* Templ.=*Hypogastura* sens. Börner) and *Biloba* nom. nov. (= *Neanura* MacGill.=*Achorutes* sens. Börner)”. Stach’s allusion to his new names having been “mentioned above” is a reference to the fact that he had already introduced the name *Neogastrura* on page 6 and again on page 9 of his book (on which latter page the species “*Neogastrura viatica* (Tullberg, 1872)” was expressly designated as the “Genotypus” of his genus *Neogastrura*) and that he had also introduced the name *Biloba* on page 6 of his book. While sharing Stach’s view that the name *Achorutes* Templeton has been so seriously compromised by divergent usage as to have lost all practical value, it must be noted that it is not possible on this account to discard that name, save by the use by the International Commission of its Plenary Powers. Accordingly under the *Règles* the generic name *Biloba* Stach is invalid as a junior objective synonym of *Achorutes* Templeton, 1835. When we turn to *Neogastrura* Stach, we find that *Achorutes viaticus* Tullberg, 1872, its type species, is considered by Stach himself, as also by all other specialists except MacGillivray (1893), to be congeneric, and even consubgeneric, with the nominal species *Podura nivicola* Fitch, 1847 (*Amer. J. agr. Sci.* 5 : [10]), the type species, by original designation, of *Schoturus* MacGillivray, 1893 (*Canad. Ent.* 25 : 315, 316). Thus, although a nomenclatorially available name, *Neogastrura* Stach is, under the *Règles*, a junior subjective synonym of *Schoturus* MacGillivray. It should be noted however that the name *Schoturus* MacGillivray has never been used by specialists, although, as pointed out by Laing (1945, *Ent. mon. Mag.* 81 : 136), that name should under the *Règles*

be applied to the genus known incorrectly as *Achorutes* Templeton in America and as *Hypogastrura* Bourlet in Europe.

9. Having now completed our survey of the names given to, or used for, the two genera under consideration, we may offer the following synonymy of the names concerned :—

GENUS "A"	GENUS "B"
Genus having <i>Achorutes muscorum</i> Templeton, 1835 or nominal species subjectively identified therewith as type species	Genus having <i>Achorutes viaticus</i> Tullberg, 1872, as type species or, in the case of <i>Schoturus</i> MacGillivray, 1893, a species (<i>Podura nivicola</i> Fitch, 1846) subjectively regarded by specialists as congeneric with <i>Achorutes viaticus</i> Tullberg, 1872
(1) Objectively valid name	(1) Oldest subjectively available name
<i>Achorutes</i> Templeton, 1835	<i>Schoturus</i> MacGillivray, 1893
(2) Junior objective synonyms	(2) Junior objective synonyms
<i>Rathumoutes</i> Templeton, 1843 <i>Achoreutes</i> Templeton, 1843 <i>Biloba</i> Stach, 1949	None
(3) Junior subjective synonyms	(3) Junior subjective synonym
<i>Anoura</i> Gervais, 1843 (also invalid because a junior homonym of <i>Anoura</i> Gray (J.E.), 1838) <i>Anura</i> Agassiz, 1846 (also invalid because a junior homonym of <i>Anura</i> Hodgson, 1841) <i>Neanura</i> MacGillivray, 1893 (nom. nov. for <i>Anoura</i> Gervais, 1843)	<i>Neogastrura</i> Stach, 1949
(4) Incorrect use of a non-identical name	(4) Incorrect uses of non-identical names
None	<i>Achorutes</i> Templeton, 1835 (as used by American authors) <i>Hypogastrura</i> Bourlet, 1839 (as used by European authors)

10. I first brought the present case to the attention of the Commission in November 1945, being already of the opinion that order could be restored in the nomenclature of this group only with the help of the Commission's Plenary Powers. I then recommended that the Commission should suppress altogether the name *Achorutes* Templeton and that the name *Hypogastrura* Bourlet, 1839, should be stabilised for the genus having *Achorutes viaticus* Tullberg, 1872, as its type species and that the name *Neanura* MacGillivray, 1893, should be stabilised for the genus having *Achorutes muscorum* Templeton, 1835, as type species. It seemed to me essential that the name *Achorutes* Templeton should be discarded, for the different uses to which this name had been put so gravely compromised it that, if it were to be retained either in the sense used by European workers or in that used by American workers continued confusion would be inevitable. The remainder of my scheme provided for the validation, for the genus having *Achorutes muscorum* Templeton as type species, of the name (*Neanura* MacGillivray) used for that genus by American workers, and, for the genus having *Achorutes viaticus* Tullberg as type species, of the name (*Hypogastrura* Bourlet) currently used for that genus by European workers. This scheme aimed therefore at putting an end to the confusion arising from the use of the name *Achorutes* Templeton and at the same time giving valid force, so far as is possible, to the usage adopted by American and European workers respectively. Prior to the submission of these proposals to the Commission, I had already (1946, *Mitt. schweiz. ent. Ges.* 20(1) : 135) published a note setting out my ideas for the purpose of drawing the attention of workers in the Order Collembola to the possibility of obtaining a solution of this long-drawn-out controversy on the lines suggested. While the publication of that note did not secure—and in view of the history of this case could hardly have been expected to secure—unanimous support, it nevertheless attracted a large measure of agreement. In a case such as the present any settlement must inevitably call for some sacrifices of individual preferences but, as I am convinced, those sacrifices are much less under the scheme that I recommend than they would be under any other settlement that could be devised. I therefore strongly urge the Commission to restore order in the nomenclature of this group by taking action in the sense now recommended.

11. I further recommend that, when settling this matter at the genus-name level, the Commission should also take such steps as are necessary to stabilise the position at the family-group-name level. The family-group names concerned are the following :—

ACHORUTINI Börner, 1901, *Zool. Anz.* 24 : 13 (type genus : *Achorutes* Templeton, 1835, treated incorrectly as having *Achorutes viaticus* Tullberg, 1872, as type species)

- ACHORUTINAE Börner, 1906, *Mitt. naturh. Mus. Hamburg* **23** : 159, 160 (type genus : *Achorutes* Templeton, 1835, treated correctly as having *Achorutes muscorum* Templeton, 1835, as type species)
- BILOBIDAE Stach, 1951, *Apterygotan Faun. Poland*, Fam. Bilobidae (*Act. Mon. Mus. Hist. nat. Krakow*) : 3 (type genus : *Biloba* Stach, 1949)
- HYPOGASTRURINAE Börner, 1906, *Mitt. naturh. Hamburg* **23** : 160 (type genus : *Hypogastrura* Bourlet, 1839, treated incorrectly as having *Achorutes viaticus* Tullberg, 1872, as type species)
- NEOGASTRURIDAE Stach, 1949, *Apterygotan Faun. Poland*, Fam. Neogastruridae Brachystomellidae (*Act. Mon. Mus. Hist. nat. Krakow*) : 5 (type genus : *Neogastrura* Stach, 1949)
- NEANURINAE Börner, June 1901, *Zool. Anz.* **24** : 431 (type genus : *Neanura* MacGillivray, 1893, treated incorrectly as having *Achorutes muscorum* Templeton, 1835, as type species)
- NEANURINI Börner, October 1901, *Abh. naturw. Ver. Bremen* **17** : 33 (type genus : *Neanura* MacGillivray, 1893, treated incorrectly as having *Achorutes muscorum* Templeton, 1835, as type species)

12. Having completed the review of the complicated history of the names which form the subject of the present application, I submit as follows for the consideration of the International Commission particulars of the action needed to give effect to the proposed settlement now recommended, namely, that the Commission should :—

(1) use its Plenary Powers :—

- (a) to suppress the under-mentioned names for the purposes of the Law of Priority but not for those of the Law of Homonymy :—
- (i) the generic name *Achorutes* Templeton, 1835 ;
 - (ii) the generic name *Rathumoutes* Templeton, 1843 ;
 - (iii) the specific name *murorum* Bourlet, 1843, as published in the combination *Hypogastrura murorum* ;
- (b) to set aside all designations, indications or selections of type species for the under-mentioned nominal genera made prior to the present Ruling and to designate as the type species of those genera the nominal species severally specified below :—
- (i) *Achorutes viaticus* Tullberg, 1872, to be the type species of *Hypogastrura* Bourlet, 1839 ;
 - (ii) *Achorutes muscorum* Templeton, 1835, to be the type species of *Neanura* MacGillivray, 1893 ;

(2) place the under-mentioned generic names on the *Official List of Generic Names in Zoology* :—

(a) *Hypogastrura* Bourlet, 1839 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b)(i) above : *Achorutes viaticus* Tullberg, 1872) ;

(b) *Neanura* MacGillivray, 1893 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b)(ii) above : *Achorutes muscorum* Templeton, 1835)

(3) place the under-mentioned generic names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—

(a) the generic names *Achorutes* Templeton, 1835, and *Rathumoutes* Templeton, 1843, as suppressed under the Plenary Powers under (1)(a)(i) and (1)(a)(ii) above respectively :

(b) *Achoreutes* Templeton, 1843 (an Erroneous Subsequent Spelling of *Achorutes* Templeton, 1835) ;

(c) *Biloba* Stach, 1949 (a junior objective synonym of *Neanura* MacGillivray, 1893) ;

(d) *Anoura* Gervais, 1843 (a junior homonym of *Anoura* Gray (J.E.), 1838) ;

(e) *Anura* Agassiz, 1846 (a junior homonym of *Anura* Hodgson, 1841) ;

(f) *Neogastrura* Stach, 1949 (a junior objective synonym of *Hypogastrura* Bourlet, 1839, as defined under the Plenary Powers under (1)(b)(i) above) ;

(4) place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—

(a) *muscorum* Templeton, 1835, as published in the combination *Achorutes muscorum* (specific name of type species, by designation under the Plenary Powers under (1)(b)(ii) above, of *Neanura* MacGillivray, 1893) ;

(b) *viaticus* Tullberg, 1872, as published in the combination *Achorutes viaticus* (specific name of type species, by designation under the Plenary Powers under (1)(b)(i) above, of *Hypogastrura* Bourlet, 1839) ;

(5) place the under-mentioned specific name on the *Official Index of Rejected and Invalid Specific Names in Zoology* :—*murorum* Bourlet, 1843, as published in the combination *Hypogastrura murorum* and as suppressed under the Plenary Powers under (1)(a)(iii) above ;

- (6) place the under-mentioned family-group names on the *Official List of Family-Group Names in Zoology* :—
- (a) HYPOGASTRURINAE Börner, 1906 (type genus : *Hypogastrura* Bourlet, 1839) ;
 - (b) NEANURINAE Börner, June 1901 (type genus : *Neanura* MacGillivray, 1893) ;
- (7) place the under-mentioned family-group names on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* :—
- (a) ACHORUTINI Börner, 1901 (type genus *Achorutes* Templeton, 1835, treated incorrectly as having *Achorutes viaticus* Tullberg, 1872, as type species) (a family-group name based on a generic name suppressed under the Plenary Powers for the purposes of the Law of Priority) ;
 - (b) ACHORUTINAE Börner, 1906 (type genus : *Achorutes* Templeton, 1835, treated correctly as having *Achorutes muscorum* Templeton, 1835, as type species) (a family-group name based on a generic name suppressed under the Plenary Powers for the purposes of the Law of Priority) ;
 - (c) BILOBIDAE Stach, 1951 (type genus : *Biloba* Stach, 1949) (invalid because the name of the type genus is a junior objective synonym of *Neanura* MacGillivray, 1893, as defined under the Plenary Powers under (1)(b)(ii) above the name of a nominal genus which is the type genus of the family-group taxon NEANURINAE Börner, June 1901) ;
 - (d) NEANURINI Börner, October 1901 (type genus : *Neanura* MacGillivray, 1893) (a junior homonym of NEANURINAE Börner, June 1901, a family-group name having the same genus as type genus) ;
 - (e) NEOGASTRURIDAE Stach, 1949 (type genus : *Neogastrura* Stach, 1949) (invalid because the name of the type genus is a junior objective synonym of *Hypogastrura* Bourlet, 1839, as defined under the Plenary Powers under (1)(b)(i) above, the name of a nominal genus which is the type genus of the family-group taxon HYPOGASTRURINAE Börner, 1906).

2. Two questions of principle affecting the interpretation of the "Règles" raised in the present case : The application submitted by M. Gisin in regard to the name *Achorutes* Templeton, 1835, and associated names raised two questions of principle affecting the interpretation of the *Règles*. Each of these

has since been the subject of a *Declaration* by the International Commission. The problems so involved are outlined in the two immediately following paragraphs.

3. Bearing on the present case of the decision in “ Declaration ” 27 relating to the question of the species to be accepted in certain circumstances as the type species of a nominal genus established as a substitute for a previously established nominal genus : The first of the problems affecting the interpretation of the *Règles* raised by M. Gisin’s application was concerned with the question of the species to be accepted as the type species of a nominal genus established as a substitute for a previously established such genus in cases where the author of the substitute name designated for the nominal taxon so established a type species different from that of the nominal genus so replaced. This problem arose in connection with the generic name *Neanura* MacGillivray, 1893, one of the names included in M. Gisin’s application, and a decision on it was essential before a decision could be taken by the International Commission on this part of M. Gisin’s proposals. Accordingly, an arrangement was made between Mr. Hemming, as Secretary and M. Gisin under which an application for a *Declaration* on this subject would be submitted to the Commission by the former simultaneously with the submission of M. Gisin’s application in regard to the generic names *Achorutes* Templeton, 1835, and *Neanura* MacGillivray, 1893. Mr. Hemming’s request for a *Declaration* on the foregoing subject was published on 21st January 1955 (*Bull. zool. Nomencl.* **11** : 35—37). At the same time this question was registered as a separate case under the Number Z.N.(S.) 867. By a vote taken by the Commission simultaneously with that taken on M. Gisin’s application in regard to the names of the genera of the Order Collembola discussed above the Commission approved the adoption of the proposed *Declaration*, thus paving the way for a decision on the question of the species to be adopted as the type species of the genus *Neanura* MacGillivray, 1893. The decision taken by the Commission on the foregoing question of principle has now been embodied in *Declaration* 27³.

³ *Declaration* 27 has been published as Part 19 of the present volume.

4. Bearing on the present case of the decision in " Declaration " 28 relating to the status of a family-group name when established with an erroneously determined type species : The second of the problems affecting the interpretation of the *Règles* raised by M. Gisin's application was concerned with the status to be accorded to the name of a family-group taxon when that taxon was established on the basis of an incorrectly determined type genus. In his application M. Gisin took the view that a family-group name established in the foregoing manner ought to be treated as possessing no status in zoological nomenclature and he so based the portion of his application relating to the family-group name based on the generic name *Achorutes* Templeton, 1835, which had been incorrectly introduced in this way by Börner in 1901. As is explained later in the present *Opinion* (paragraph 19) Mr. Hemming, when preparing the Voting Paper to be submitted to the Commission in regard to M. Gisin's application, took the view that the foregoing question of principle ought to be dealt with separately from, and in advance of, the proposals submitted by M. Gisin in regard to the names of genera of the Order Collembola discussed above. He accordingly then detached this question from the remainder of M. Gisin's application, the latter retaining its original Registered Number Z.N.(S) 303, a new Number Z.N.(S.) 1038, being allotted to question of principle so removed. The two parts of M. Gisin's proposal were then submitted to the Commission for vote. Both parts of M. Gisin's application were approved by the International Commission in due course (paragraph 24 and 25 below). The decision on the question of principle relating to family-group names has this day been embodied in *Declaration 28*⁴ as a preliminary to the adoption of the present *Opinion*.

II. THE SUBSEQUENT HISTORY OF THE CASE

5. Registration of the present application : Upon the receipt of M. Gisin's preliminary communication in November 1954

⁴ See Footnote 1.

regarding the generic name *Achorutes* Templeton and a number of other generic names in the Order Collembola, the papers so received were provisionally allotted the Registered Number Z.N.(S.) 199. When work was commenced on the individual cases so submitted by M. Gisin, the problems involved in connection with the generic name were allotted the separate Registered Number Z.N.(S.) 303.

6. Issue of Public Notice in 1947 : Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 14th November 1947 in the manner prescribed by the Ninth International Congress of Zoology, Monaco, 1913, at the time of the grant of the Plenary Powers to the Commission by that Congress. The issue of these Public Notices elicited support from one specialist. Particulars of the communication so received is given in the immediately following paragraph.

7. Support received from Harlow B. Mills (State Natural History Survey Division, Urbana, Illinois, U.S.A.) : On 23rd March 1948 Dr. Harlow B. Mills (*State Natural History Survey Division, Urbana, Illinois, U.S.A.*) wrote a letter to the Office of the Commission in which he commented on a number of cases recently published in the *Bulletin of Zoological Nomenclature*. Dr. Mills's remarks concerning the present case were as follows (Mills, 1955, *Bull. zool. Nomencl.* **11** : 102) :—

Hypogastrura Bourlet with *Achorutes viaticus* Tullberg as the type. While I do not follow the reasoning clearly that *Hypogastrura* should replace *Achorutes* in this sense, the situation here is different from that outlined for *Podura* and *Tomocerus*. *Hypogastrura* has been used for this species group by European workers for many years. On the other hand, American workers and British specialists have, in general, used the name *Achorutes*. Because of this confusion in the use of generic names for the same species group, something should be done about it and I feel that a ruling of the Commission will be necessary to settle this matter. I would recommend (however, with considerable regret) that the generic name *Hypogastrura* be used, with *Achorutes viaticus* Tullberg as the type. This should settle this complex problem.

Neanura MacGillivray. This has been misspelled *Noanura* in the note in *Science*. As I read the literature, *Achorutes muscorum* Temple-

ton becomes the type of the genus *Neanura* without Commission action. However, if there is any doubt in anyone's mind I feel that the Commission should indicate, as a suspension of the Rules if it so desires, that *Achorutes muscorum* is the type of *Neanura* MacGillivray.

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8. Administrative preoccupations in the period 1948—1953 :
In the period immediately following the issue of the Public Notices specified in paragraph 6 above printing difficulties, including shortages of labour at the printing works, made it impossible to arrange for the publication in the *Bulletin of Zoological Nomenclature* of the preliminary communication received from M. Gisin in regard to the present case prior to the Session of Meetings held by the International Commission in Paris in July 1948 simultaneously with the meeting of the Thirteenth International Congress of Zoology. In the period of about eighteen months immediately following the close of the Paris Congress the entire resources of the Office of the Commission were directed to the preparation and publication of the Official Records of the meetings then held by the International Commission and by the Section on Nomenclature of the Congress. These were published in 1950 *Bull. zool. Nomencl.* 4, 5) in which year a start was made on the resumption of work on applications on individual names submitted to the Commission by individual specialists for decision. At that time as the result of the difficulties which had confronted the Commission both during the war and in the immediate post-war period there was a considerable accumulation of arrears of cases calling for attention by the Commission. So far as was possible, these cases were dealt with in rotation and in consequence the state of this case had been but little advanced by the time when in 1952 it became necessary to switch the main activity of the Office of the Commission to the preparations needed for the meeting of the Commission arranged to be held at Copenhagen in July 1953. When at the beginning of 1954 it once more became possible to resume work on individual applications, the present was one of the first to be given attention. The decision of the Copenhagen Congress in the previous year that in the case of applications such as the present which involved generic names consideration should be given to the family-group-name problems involved introduced into the present case a fresh

element of complexity. In the course of the year these difficulties were, however, cleared up between the Office of the Commission and M. Gisin who, as already noted (paragraph 1 above) was ultimately able to submit the present application to the Commission on 15th December 1954.

9. Support received in 1955 from J. T. Salmon (Victoria University College, Department of Zoology, Wellington, New Zealand) : On 13th January 1955 Dr. J. T. Salmon (*Victoria University College, Department of Zoology, Wellington, New Zealand*), in response to an invitation from the Secretary to the Commission to forward views on this case as a result of correspondence which had taken place between Dr. Salmon and the Secretary in 1948, addressed the following letter to the Commission (Salmon, 1955, *Bull. zool. Nomencl.* **11** : 232) :—

I am very pleased to hear that the question of *Hypogastrura* is to be settled at last. If the rules are not to be applied, then I think the proposal set out in your letter [i.e., the proposals as set out in Dr. Gisin's application] is certainly the best solution. It has my full support.

10. Publication of the present application : The present application was sent to the printer on 31st December 1954 and was published on 31st January 1955 in Part 2 of Volume 11 of the *Bulletin of Zoological Nomenclature* (Gisin, 1955, *Bull. zool. Nomencl.* **11** : 38—48).

11. Reissue of Public Notices in 1955 : In the period which had elapsed since the issue in 1947 of Public Notices in regard to the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case changes in regard to the manner in which such Notices should be given have been introduced by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56) and in consequence renewed Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers was given on 31st January 1955 (a) in Part 2 of Volume 11 of the *Bulletin of Zoological Nomenclature* (the Part

in which M. Gisin's application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to certain general zoological serial publications and to seven entomological serials in Europe and America.

12. Comments received : The publication of M. Gisin's application and the accompanying issue of Public Notices elicited comments from six specialists in addition to Dr. Harlow B. Mills and Dr. J. T. Salmon from whom, as already noted, comments had been received prior to the publication of the present application (paragraph 7 and paragraph 9 above respectively). Of the six specialists concerned four (Kenneth A. Christiansen ; H. E. Goto ; D. H. Murphy ; R. Yosii) supported the application submitted by M. Gisin, one (Paclt) supported one part of that application but objected to another part, and one (Peter F. Bellinger) objected to the use of the Plenary Powers in the manner proposed. The communications so received are reproduced in the immediately following paragraphs.

13. Support from Kenneth A. Christiansen (Smith College, Northampton, Massachusetts, U.S.A.) : On 24th April 1955 Kenneth A. Christiansen (*Smith College, Northampton, Massachusetts, U.S.A.*) sent to the Office of the Commission a letter in support of three of M. Gisin's proposals. His remarks concerning the present case were as follows (Christiansen, 1955, *Bull. zool. Nomencl.* **11** : 266) :—

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Support for Z.N.(S.) 303. This proposal will establish as valid the procedure which has been followed by many taxonomists in the field during the last ten years. The names have both been in wide usage, and neither is confusable with other groups. The various attempts to solve this problem by creation of new names have achieved no support other than that of the original authors (i.e. Paclt for *Neohypogastrura* and Stach for *Neogastrura*)

14. Support from H. E. Goto (Imperial College of Science and Technology, London) and D. H. Murphy (University of Durham) : On 23rd May 1956 H. E. Goto (*Imperial College of Science and Technology*) and D. H. Murphy (*University of Durham*) addressed to the Office of the Commission a letter in support of three of

M. Gisin's proposals. The following is an extract from this letter which bears on the present case :—

We should like to give our full support to the under-mentioned proposals made by M. Gisin to the International Commission on Zoological Nomenclature :—

Proposed suppression under the Plenary Powers of the generic names *Achorutes* Templeton, 1835, and designation under the same Powers of a type species for the genus *Hypogastrura* Bourlet, 1839.

15. Support from R. Yosii (Biological Institute of the Yoshida College, University of Kyoto, Japan) : On 28th June 1955 Professor R. Yosii (*Biological Institute of the Yoshida College, University of Kyoto, Japan*) wrote a letter to the Commission in support of the present application and other proposals by, M. Gisin. The portion of Professor Yosii's letter which is relevant to the present case is as follows :—

Z.N.(S.) 303 : If the present application is adopted it would be cordially welcomed by me. Since I began my studies in Collembola more than fifteen year ago I have been perplexed by the confusion of the usage of the generic name *Achorutes* and decided personally to abandon the name and use *Hypogastrura* and *Neanura* only. The present application, therefore, legalises my private usage and is highly commendable. There should be no confusion or disorder from this action.

16. Comment received from J. Paclt (Slovak Academy of Sciences, Bratislava, Czechoslovakia) : On 1st April 1955 Dr. J. Paclt (*Slovak Academy of Sciences, Bratislava, Czechoslovakia*) addressed the following statement to the Office of the Commission with regard to the present case (Paclt, 1955, *Bull. zool. Nomencl.* **11** : 265) :—

Being entirely in favour of the proposal that the Commission should use its Plenary Powers to place the generic name *Hypogastrura* Bourlet, 1839, on the *Official List of Generic Names in Zoology* and to designate under the same Powers *Achorutes viaticus* Tullberg, 1872, to be the type species of that genus, I think that the strict application of the Rules must, on the other hand, be enforced in the case of the generic name *Achorutes* Templeton, 1835.

When the use of the generic name *Hypogastrura* Bourlet, 1839, is stabilised according to the proposal in question, all confusion in the use of the generic name *Achorutes* Templeton, 1835, ceases to exist, for the latter name cannot be used erroneously for the other genus (with *A. viaticus* Tullberg as type species) any longer. The same usage has been adopted not only by European authors, but also by a number of non-European workers, e.g., Womersley (1939, *Primitive Insects of South Australia, Adelaide*), who all reject the junior synonym *Neanura* MacGillivray, 1893, in favour of *Achorutes* Templeton, 1835 (with *A. muscorum* Templeton as type species). Besides these arguments another fact seems to support my objection to the proposed use of the Plenary Powers to suppress the generic name *Achorutes* Templeton, 1835. The etymology of the generic name *Achorutes* indicates clearly that the genus comprises, in contrast to *Hypogastrura*, species which are unable to spring ($\alpha + \chi\omicron\rho\rho\epsilon\nu\tau\eta\varsigma$, "not" + a "ballet dancer"), an excellent mnemonic to any student of Collembola, who possesses some knowledge of classic philology.

At any rate, it would be very inconvenient to put aside the well-known generic name *Achorutes* Templeton, 1835, now, when it may, more easily than whenever before, be restricted practically to its correct usage, assuming that the case of *Hypogastrura* Bourlet, 1839, is settled by the Commission's action.

17. Objection received from P. F. Bellinger (University College of the West Indies, Jamaica, B.W.I.) : On 26th June 1955 Dr. P. F. Bellinger (*University College of the West Indies, Jamaica, B.W.I.*) addressed to the Office of the Commission a statement with regard to the present case. An extract from the letter so received was as follows :—

I heartily sympathize with M. Gisin's desire to promote stability in the nomenclature of Collembola, but find I cannot agree with him on the best method of achieving this.

Let me say at once that I base my opinion of these proposals on a preference for restriction of the Plenary Powers which may be peculiarly my own. I would prefer that the use of these powers be limited to cases where the strict application of the Rules cannot, by the nature of the case, produce a satisfactory result ; for example, the suppression of generic names whose application is uncertain because of the impossibility of determining the identity of their types. The suppression of senior synonyms whose identity is known should, I

believe, be avoided, except perhaps for names which have never been used since their publication.

In the cases under consideration, my views are as follows :

1. *Achorutes* Templeton, 1835 : As M. Gisin points out, the type of this genus has apparently been selected as *muscorum* Templeton. This name (*muscorum*) is in common use and always applied to a species which could not be confused with any other in the Irish fauna ; and Templeton's description, while inadequate, could not fit any other species. Since the type of *Achorutes* is a recognized species, there is no uncertainty about the application of this generic name. I am opposed to its suppression ; it has been used in the correct sense for many years by most European authors, and no action on the part of the Commission is necessary to validate this usage.

2. *Hypogastrura* Bourlet, 1839 : I have not seen Bourlet's original description, but M. Gisin provides sufficient information for a decision. The type of *Hypogastrura* must be "*aquatica* Linnaeus" of Bourlet. If this species is taken as being the true *aquatica* Linnaeus, then *Hypogastrura* must fall to *Podura*. If, as seems more probable, Bourlet's "*aquatica*" was another species, i.e. *murorum* Bourlet, 1839, then there are two possibilities ; either *murorum* is indeterminable, in which case the identity of *Hypogastrura* is also indeterminable, or *murorum* can be determined. In the latter case it is necessary to decide on the identity of *murorum*. So far as I am aware, the only suggestion in the literature as to its identity is that it is the same as *viaticus* Tullberg. In this case the latter name should fall to *murorum*. It seems to me that *Hypogastrura* must be either (1) a synonym of *Podura*, or (2) a name of uncertain application which should be suppressed, or (3) a valid name with *murorum* as its type. To validate *Hypogastrura* while at the same time suppressing *murorum*, which furnishes the only link between Bourlet's concept and the modern European one, would be illogical and contradictory.

I personally would prefer to see *Hypogastrura* suppressed, together with *murorum*, or alternatively to have the type of *Hypogastrura* fixed as *aquatica* Linnaeus, which would also dispose of the name. In the event of such action, the oldest name for the genus now known as *Hypogastrura* would be *Podurhippus* Mégnin, 1878. This name, which M. Gisin does not mention, has undoubted priority over *Schoturus* MacGillivray and any other names known to me. The type of *Podurhippus* (monotypic) is *pityriasicus* Mégnin ; Denis (*Bull. Soc. zool. France* 49 : 555—556) has shown that Mégnin's specimens belong to *Achorutes manubrialis* Tullberg, 1869. *Podurhippus* therefore has a well-known species as its type, and the application of the name is not in doubt. *Schoturus* would still be available for *nivicola* Fitch, if it were desirable to separate this species generically from *manubrialis*.

I have made these suggestions in the belief that the stability of nomenclature will be best achieved by use of the Plenary Powers only in cases where permanent, as opposed to temporary confusion is to be avoided. However, unanimity of action is certainly more important than any personal views on the application of the Rules, and I will regard any action taken by the Commission as final.

18. Withdrawal of the proposal for the addition of the tribe name "NEANURINI" Börner, October 1901, to the "Official Index of Rejected and Invalid Family-Group Names in Zoology" : On 8th November 1955 Mr. Hemming, as Secretary, prepared the Voting Paper to be submitted to the International Commission in connection with the present case and, in doing so, added a note (Note 5) regarding the proposal included in M. Gisin's application that the tribe name NEANURINI Börner, October 1901, should be placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology*. In this Note Mr. Hemming pointed out that the oldest family-group name based on the generic name *Neanura* MacGillivray, 1893, was NEANURINAE Börner, June, 1901 which M. Gisin had recommended should be placed on the *Official List of Family-Group Names in Zoology*, and that the publication of a family-group name based upon a given generic name for a taxon of any rank in the family-group (in this case, a subfamily) involved also implicitly the publication on the same date of family-group names based on that generic name for taxa of every other rank within the family-group, family-group names being co-ordinate with one another (1953, *Copenhagen Decisions zool. Nomencl.* : 33, Decision 46). In consequence of the foregoing provision a tribe name NEANURINI was to be deemed for nomenclatorial purposes to have been published at the same time as the subfamily name NEANURINAE was published by Börner in June 1901. For the purposes of nomenclature, therefore there was no tribe name NEANURINI ranking as a new name distinct from the subfamily-name NEANURINAE Börner, June 1901. The proposal included in Point (7)(d) in paragraph 12 of M. Gisin's application that the name NEANURINI Börner, October 1901, should be placed as a separate name on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* was therefore incorrect and had,

Mr. Hemming explained, been included in the present application by inadvertence. Mr. Hemming concluded his Note by withdrawing Proposal (7)(d) in paragraph 12 of the present application from the scope of the proposal on which the Members of the Commission would be asked to vote.

19. Decision to divide M. Gisin's application into two portions in order to provide an opportunity to the Members of the Commission to vote separately (a) on the question of principle involved regarding the status of a family-group name based upon a misidentified type genus and (b) on the proposals submitted relating to the names of certain taxa belonging to the Order Collembola (Class Insecta) : When preparing the Voting Paper to be submitted to the Members of the International Commission in connection with the application submitted by M. Gisin in regard to the names of certain taxa belonging to the Order Collembola (Class Insecta) Mr. Hemming added a note (Note 6) drawing attention to the decision taken on procedural grounds under which two Voting Papers would be submitted to the Commission in the present case, the first being concerned with the possible adoption of a *Declaration* clarifying the novel point on family-group nomenclature raised in M. Gisin's application, the second with M. Gisin's proposals in regard to the names of certain taxa in the Order Collembola⁵.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

20. Issue of Voting Papers V.P.(56)2 and V.P.(56)3 : On 27th January 1956 two Voting Papers (V.P.(56)2 and V.P.(56)3)

⁵ See paragraph 4 of the present *Opinion*.

relating to the present case were issued to the Members of the International Commission. In the first of these Voting Papers the Members of the Commission were invited to vote either for, or against the adoption of a *Declaration* interpreting the provisions in the *Règles* relating to family-group names in the sense in which it had been interpreted by M. Gisin in his application when dealing with the status of the family-group name ACHORUTINI Börner, 1901. In the second of the Voting Papers referred to above the Members of the Commission were invited to vote either for, or against, “ the proposal relating to the generic name *Achorutes* Templeton, 1835, and associated names as set out in Points (1) to (6) and (7)(a) to (7)(c) and (7)(e) on page 46 onwards to page 48 in Volume 11 of the *Bulletin of Zoological Nomenclature* ” [i.e. in the Points numbered as above in paragraph 12 of the application reproduced in the first paragraph of the present *Opinion*].

21. The Prescribed Voting Period for Voting Papers V.P.(56)2 and V.P.(56)3 : As the foregoing Voting Papers were issued under the Three-Month Rule, the Prescribed Voting Period for each of these Voting Papers closed on 27th April 1956.

22. Particulars of the Voting on Voting Paper V.P.(56)3 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)3 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-two (22) Commissioners (arranged in the order in which Votes were received) :*

Holthuis ; Vokes ; Hering ; Mayr ; Kühnelt ; Lemche ; Bradley (J.C.) ; do Amaral ; Dymond ; Stoll ; Prantl ; Jaczewski ; Key ; Bodenheimer ; Bonnet ; Sylvester-Bradley ; Hemming ; Hankó ; Tortonese ; Boschma ; Cabrera ; Miller ;

(b) *Negative Votes, three (3) :*

Mertens ; Riley ; Esaki ;

(c) *Voting Papers not returned* :

None.

23. Postponement in April 1956 of the Declaration of the Result of the Vote on Voting Paper V.P.(56)2 : Since (as explained in paragraph 20 above) Voting Paper V.P.(56)2 was issued on the same date as Voting Paper V.P.(56)3, the Prescribed Voting Period for that Voting Paper closed also on 27th April 1956. When the Votes returned by the Members of the Commission on Voting Paper V.P.(56)2 came to be examined, it was found that questions of substance regarding the form of the proposed *Declaration*, the adoption of which formed the subject of that Voting Paper, had been raised by certain Members of the Commission. The Secretary accordingly decided that the proper course would be to invite the International Commission to re-examine the wording of the proposed *Declaration* in the light of the comments referred to above. Mr. Hemming therefore re-submitted this question to the Members of the Commission on 31st July 1956, together with a further Voting Paper (V.P.(O.M.)(56)15) in which was set out for consideration a revised formula which took account of the questions of presentation referred to above. Since the adoption of a *Declaration* clarifying the provisions in the *Règles* in relation to the status of a family-group name where the family-group taxon so named was based upon a misdetermined type genus was an indispensable preliminary to the taking by the International Commission of a decision regarding one of the names dealt with in M. Gisin's application (namely, ACHORUTINI Börner, 1901), Mr. Hemming at the same time decided to postpone the Declaration of the Result of the Vote on Voting Paper V.P.(56)3 until after a decision had been reached by the Commission on the revised proposals submitted with Voting Paper V.P.(O.M.)(56)15 which, as explained above, was issued in substitution for Voting Paper V.P.(56)2.

24. Adoption in September 1956 of a " Declaration " clarifying the interpretation of the provisions in the " Règles " relating to family-group names on which a decision was required as a per-

liminary to the taking by the Commission of a decision in regard to one of the names dealt with in the present case : The Prescribed Voting Period for Voting Paper V.P.(O.M.)(56)15 closed on 31st August 1956, when it was found that the revised proposal submitted with that Voting Paper had been approved and adopted by the International Commission. The decision so taken has this day been embodied in *Declaration 28*.⁶ Under the terms of that *Declaration* the family-group name ACHORUTINI Börner, 1901, being a name published for a family-group taxon based upon a misidentified type genus, possesses no status in zoological nomenclature. Accordingly, the provisional decision in this sense taken by the International Commission by its vote on Voting Paper V.P.(56)3 is confirmed and the ground cleared for the Declaration of the Result of the vote by the Commission on that Voting Paper.

25. Declaration of Result of Vote on Voting Paper V.P.(56)3 : On 1st September 1956, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(56)3, signed a Certificate that the Votes cast were as set out in paragraph 22 above and that the vote provisionally so taken as regards the family-group name ACHORUTINI Börner, 1901, had been duly confirmed by the adoption of *Declaration 28*, and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

26. Preparation of the Ruling given in the present " Opinion " : On 7th September 1956 Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(56)3, as confirmed, as respects one name, by *Declaration 28* rendered simultaneously with the present *Opinion*.

⁶ See Footnote 1.

27. Original References : The following are the original references for the generic and specific names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

Achoreutes Templeton, 1843, *Trans. ent. Soc. Lond.* **3**(4) : 306

Achorutes Templeton, 1835, *Trans. ent. Soc. Lond.* **1**(2) : 96

Anoura Gervais, 1843, *Ann. Soc. ent. France* **11**(3) : Bull. xlvii

Anura Agassiz (J.L.R.), 1846, *Nomencl. zool.*, Index univ. : 27

Biloba Stach, 1949, *Apterygotan Faun. Poland*, Fam. Neogastruridae Brachystomellidae (*Act. Mon. Mus. Hist. nat. Krakow*) : 6, 16

Hypogastrura Bourlet, 1839, *Mém. Soc. R. Sci. Lille* **1839**(1) : 404

murorum, *Hypogastrura*, Bourlet, 1843, *Mém. Soc. R. Agric. Dep. Nord* **1841—1842** : 123

muscorum, *Achorutes*, Templeton, 1835, *Trans. ent. Soc. Lond.* **1**(2) : 97

Neanura MacGillivray, 1893, *Canad. Ent.* **25** : 314

Neogastrura Stach, 1949, *Apterygotan Faun. Poland*, Fam. Neogastruridae Brachystomellidae (*Act. Mon. Mus. Hist. nat. Krakow*) : 6, 9, 16

Rathumoutes Templeton, 1843, *Trans. ent. Soc. Lond.* **3**(4) : 306

viaticus, *Achorutes*, Tullberg, 1872, *K. Svensk Vetensk-Akad. Handl.* (n.s.) [Ser. 4] **10** (No. 10) : 50

28. The following are the original references for the names of family-group taxa placed on the *Official List* and *Official Index* established for such names by the Ruling given in the present *Opinion* :—

ACHORUTINI Börner, 1901, *Zool. Anz.* **24** : 13 (type genus : *Achorutes* Templeton, 1835, treated incorrectly as having *Achorutes viaticus* Tullberg, 1872, as type species)

ACHORUTINAE Börner, 1906, *Mitt. naturh. Mus. Hamburg* **23** : 159, 160 (type genus : *Achorutes* Templeton, 1835, treated correctly)

as having *Achorutes muscorum* Templeton, 1835, as type species)

BILOBIDAE Stach, 1951, *Apterygotan Faun. Poland*, Fam. Bilobidae (*Act. Mon. Mus. Hist. nat. Krakow*) : 3 (type genus : *Biloba* Stach, 1949)

HYPOGASTRURINAE Börner, 1906, *Mitt. naturh. Mus. Hamburg* **23** : 160 (type genus : *Hypogastrura* Bourlet, 1839)

NEANURINAE Börner, June, 1901, *Zool. Anz.* **24** : 431 (type genus : *Neamura* MacGillivray, 1893)

NEOGASTRURIDAE Stach, 1949, *Apterygotan Faun. Poland*, Fam. Neogastruridae Brachystomellidae (*Act. Mon. Mus. Hist. nat. Krakow*) : 5 (type genus : *Neogastrura* Stach, 1949)

29. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

30. The present *Opinion* shall be known as *Opinion* Four Hundred and Thirty-Five (435) of the International Commission on Zoological Nomenclature.

DONE in London, this Seventh day of September, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING